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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/825,453	04/03/2001	Richard A. Simon	81020PF-P	1326

7590 07/06/2004

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EXAMINER	
HUYNH, THU V	

ART UNIT	PAPER NUMBER
2178	

DATE MAILED: 07/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/825,453	SIMON ET AL.	
	Examiner	Art Unit	
	Thu V Huynh	2178	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 April 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *06/22/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: IDS and application filed on 04/03/2001 which has CIP filed on 04/27/2000.

2. Claims 1-39 are pending in the case. Claims 1, 16, and 36-38 are independent claims.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-15, 20-21, and 34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding independent claim 1. Claim 1 recites the limitation "wherein said plurality of images are not placed in said placeholder" is unclear, since "said placeholder" is not necessary to be the "image placeholder". There is insufficient antecedent basis for this limitation in the claim, since "said placeholder" is not mentioned, but "image placeholder".

Regarding dependent claim 8. Claim 8 recites the limitation "wherein **said placing** of said plurality of images . . . ". There is insufficient antecedent basis for this limitation in the claim.

Dependent claims 2-15 are rejected for fully incorporating the dependencies of its base claim.

Regarding dependent claim 20. Claims 20 recites the limitation "said image is an image placeholder" is unclear, since an **image** cannot be an image **placeholder**. Examiner interprets the limitation as "said image is a placeholder image".

Dependent claim 21 is rejected for fully incorporating the dependencies of its base claim.

Regarding dependent claim 34. Claim 34 recites the limitation "A method according to claim 31 wherein **said white space** is determined . . . ". There is insufficient antecedent basis for this limitation in the claim. Examiner assumes that claim 34 dependent on claim 23.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1-35 and 37-39 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding independent claims 1, 16, and 37-38, these claims limitations first are not written in the technological arts. As such they could be carried out in a piece of paper with a layout on it. The claims limitations are not tangibly embodied on a computer, computer readable medium or other statutory device.

Dependent claims 2-15, 17-34, 36 and 39 are also not written in the technological arts, and/or not tangibly embodied on a computer, and are rejected under the same rationale above.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. Claims 1-3, 5, 8, 12 and 37-39 are rejected under 35 U.S.C. 102(a) as being anticipated by King et al., US 5,956,737, patented 09/1999.

Regarding independent claim 1, King teaches a method of organizing a plurality of images including at least one image placeholder in predetermined page format (King, col.3, lines 31-51; col.21, line 60 – col.23, line 20 and corresponding figures), comprising the steps of:

- grouping said plurality of images into a plurality of different page layouts, wherein said plurality of images are not placed in said placeholder (King, col.3, lines 31-51; col.21, line 60 – col.23, line 20 and corresponding figures; using media tree of different layouts to arrive at the eventual layout, which exist as intermediate layout. grouping images, such as "fish logo", "rods" and "nets" images into different page layouts, wherein said images are not placed in a placeholder); and
- analyzing each of said different page layouts in accordance with a predetermined criteria and selecting the page layout based on said predetermined criteria (King, col.3, lines 19-21 and col.41, lines 5-10, the media tree analysis proceeds until primitives a reached, wherein a white space scale factor in determining how layouts are arrived at to choose the eventual layout).

Regarding claim 2, which is dependent on claim 1, King teaches placing said plurality of images in said selected page layout (King, col.49, lines 48-58; media content is fit to calculated layout).

Regarding claim 3, which is dependent on claim 1, King teaches wherein said predetermined criteria comprises the amount of white space in each of said page layouts (Refer to the rationale relied to reject claim 1, King teaches white space scale factor, which implies that said predetermined criteria comprises the amount of white space in each of said page layout).

Regarding claim 5, which is dependent on claim 1, King teaches scaling the images of said selected page layout by different amounts (King, col.41, lines 1-2; scale factors may apply to particular design components. This implies scaling the images of selected page layout by different amounts).

Regarding claim 8, which is dependent on claim 1, King teaches wherein said placing of said plurality of images in said different page layouts comprises scaling all of said images such that they fit within said page format (King's abstract describes "scale factors"; col.49, lines 48-58; and fig.33).

Regarding claim 12, which is dependent on claim 1, King teaches spatially balancing the spacing between said images (King, col.30, lines 65-66; taking account of a type of balance in how the elements are arranged on the page).

Regarding independent claim 37, King teaches the steps of:

- providing a plurality of digital images (King, providing images, such as "fish logo", "rods" and "nets" images);
- providing at least one image placeholder (King, providing at least one image placeholder with rectangle dimension for fill in at least one of said images);
- selecting a number of said images and said at least one image placeholder for placement on said predetermined format (King, selecting "fish logo" and "rods" images and at least one image place holder for placement on predetermined format);
- grouping said plurality of images and said image placeholder into a plurality of different page layouts (King, grouping "fish logo" and "rods" images and said image placeholder into different page layouts).
- analyzing each of said different page layouts in accordance with a predetermined criteria and selecting the page layout based on said predetermined criteria (Koba, col.5, lines 36-56; col.6, lines 43-66; figure 4 and corresponding text; analyzing each different page layouts in accordance with initial parameters of each page to select an appropriate layout).

Regarding independent claim 38, claim 38 disclose a method similar to claim 1, King also teaches the step of storing said selected page layout for later use (King, col.10, line 57 – col.11, lines 48-52 and col.48, lines 7-11 and fig.37). Therefore, claim 38 is rejected under the same rationale.

Regarding dependent claim 39, which is dependent on claim 38, King teaches wherein said stored page layout is used with a second plurality set of images (King, col.10, line 57 – col.11, lines 48-52 and col.48, lines 7-11 and fig.37).

9. Claim 37 is rejected under 35 U.S.C. 102(a) as being anticipated by Koba, US 6,222,947 B1, filed 02/1998.

Regarding independent claim 36, Koba teaches computer software product for laying out plurality of input image in predetermined format comprising a computer readable storage medium having a computer program (Koba, col.3, lines 20-31 and col.11, lines 62-65) which when loaded into a computer cause the computer to perform the steps of:

- grouping said plurality of images into a plurality of different page layouts, wherein said plurality of images are not placed in a predefined area on said page (Koba, figures 5A-5; col.5, lines 36-42; and col.6, lines 21-45; grouping input images into different page layouts, wherein said input images are not placed in a predefined area on said page, such as a predefined are for header which contain the page number); and

- analyzing each of said different page layouts in accordance with a predetermined criteria and selecting the page layout based on said predetermined criteria (Koba, col.5, lines 36-56; col.6, lines 43-66; figure 4 and corresponding text; analyzing each different page layouts in accordance with initial parameters of each page to select an appropriate layout).

Regarding independent claim 37, Koba teaches the steps of:

- providing a plurality of digital images (Koba, col.1, lines 6-8 and col.2, lines 4-51 input plurality of digital images to be laid out on a page);
- providing at least one image placeholder (Koba, col.6, lines 7-20; provide at least one page layout including layout position of each image);
- selecting a number of said images and said at least one image placeholder for placement on said predetermined format (Koba, figures 5A-5; col.5, lines 36-42; col.6, lines 21-45; and col.6, lines 7-20; selecting a number of said a plurality input images and said image placeholder for placement on a page layout based on user input parameters);
- grouping said plurality of images and said image placeholder into a plurality of different page layouts (Koba, figures 5A-5; col.5, lines 36-42; and col.6, lines 7-45; grouping a plurality input images and said image placeholder into a plurality of page layouts based on user input parameters).
- analyzing each of said different page layouts in accordance with a predetermined criteria and selecting the page layout based on said predetermined criteria (Koba,

col.5, lines 36-56; col.6, lines 43-66; figure 4 and corresponding text; analyzing each different page layouts in accordance with initial parameters of each page to select an appropriate layout).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
>
> (b) This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 4 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over King as applied to claims 1 and 3 above, and further in view of Ross et al., US 6,026,417, filed 05/1997.

Regarding claim 4, which is dependent on claim 3, King does not explicitly teaches wherein said analyzing said different page layouts comprises scoring each of said different page layouts.

Ross teaches how a Page Manager calculates a closeness score as part of preparing page layouts in order to aid the decision process (Ross, col.28, lines 42-65), which constitutes a

situation wherein analyzing said different page layouts comprises scoring each of said different page layout.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Ross and King, since this would used Ross's scoring to aid the decision process of King's invention.

Regarding claim 9, which is dependent on claim 1, King teaches the user of recursive design tree to compare various layouts (King, abstract). Since recursion is internally represented by iteration, this process necessarily involves analyzing of said different page layouts that comprising a iteration of different page layouts and selecting the best page layout until the criteria are best met. However, King does not explicitly teach a situation where little or no further improvement in scoring is obtained.

Ross teaches how a Page Manager calculates a closeness score as part of preparing page layouts in order to aid the decision process (Ross, col.28, lines 42-65), which constitutes a situation wherein analyzing said different page layouts comprises scoring each of said different page layout.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Ross and King, since this would used Ross's scoring to aid the decision process of King's invention.

Regarding claim 10, which is dependent on claim 9, King and Ross teach the limitations of claim 9 as explained above. King teaches scaling individual images of the page layout

obtained after said iteration (King, col.40, lines 52-54; scale factors may be used to adjust components' fit in the layout process).

12. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over King as applied to claim 3 above, and further in view of Nakatake et al., as supplied by the Application in IDS filed on 04/03/2001.

Regarding claim 6, which is dependent on claim 3, King does not explicitly teach wherein the amount of white space is minimized by using stochastic algorithms.

Nakatake's teachings are relevant to an analogous situation, in which chips are arranged on an intergrated circuit. In this situation, Nakatake refers to using simulated annealing, which is a type of stochastic algorithm, because it packs with good area efficiency and therefor minimizes white space (Nakatake, page 487-488).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Nakatake and King, since Nakatake's method of simulated annealing to pack with good area efficiency, thereby resulting in a method wherein the amount of white space is minimized by using stochastic algorithm.

13. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over King as applied to claim 1 above, and further in view of Fukui et al., US 5,742,837, patented 1998.

Regarding claim 7, which is dependent on claim 1, King does not explicitly teach wherein said predetermined criteria includes placing images in said different page layouts in a non-overlapping pattern.

Fukui teaches lists lack of overlapping as a criterion because it allows for an aesthetically pleasing layout (Fukui, col.7, lines 59-60).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Fukui and King to include placing images in said different page layout in a non-overlapping pattern, since this would avoid overlap in order to arrive at a more aesthetically pleasing layout as Fukui disclosed.

14. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over King in view of Ross as applied to claim 9 above, and further in view of Fukui et al., US 5,742,837, patented 1998.

Regarding claim 11, which is dependent on claim 9, King and Ross teach the limitations of claim 9 as explained above. King does not explicitly disclose rotating said images a predetermined amount.

Bottomly teaches a process by which regions of the page are rotated 180 degrees to aid in orienting (Bottomly, col.4, lines 21-31).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Bottomly and King to rotating said images a predetermined amount, since Bottomly's method of rotating 180 degrees would have aided in orienting in page layout.

15. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over King in view of Ross as applied to claim 9 above, and further in view of Burn, US 6,014,137, filed 02/1997.

Regarding claim 13, which is dependent on claim 9, King and Ross teaches the limitations of claim 9 as explained above. King does not explicitly teach positioning said images in said selected page layout so as to provide a desired border on said page.

Burns teaches the use of window borders in a kiosk authoring system that would require image arrangement in order to present the user with an aesthetically pleasing layout (Burns, col.3, line 59).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Burns' border and King, since this would have presented the user with an aesthetically pleasing layout.

16. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over King as applied to claim 12 above, and further in view of Archibald, US 5,459,826, patented 1995.

Regarding claim 14, which is dependent on claim 12, King does not explicitly teach wherein said white space is determined vertically between adjacent images in said page layouts.

Archibald teaches the use of a vertical-horizontal grid pattern to organize the components for the layout efficiently (Archibald, col.3, lines 12-19).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Archibald and King to have said white space be determined vertically between adjacent images in said page layouts in order to organize the components for the layout efficiently.

Regarding claim 15, which is dependent on claim 12, King teaches wherein said white space is determined horizontally between adjacent images in said page layouts.

Archibald teaches the use of a vertical-horizontal grid pattern to organize the components for the layout efficiently (Archibald, col.3, lines 12-19).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Archibald and King to have said white space be determined horizontally between adjacent images in said page layouts in order to organize the components for the layout efficiently.

17. Claims 16, 23, 25, 28 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over King et al., US 5,956,737, patented 09/1999 and in view of Koba, US 6,222,947 B1, filed 02/1998.

Regarding independent claim 16, King teaches a method of finding a layout for composition, which may consist of images only. The method comprising the steps of:

- grouping said plurality of images into a plurality of different page layouts (King, col.3, lines 31-51; using media tree of different layouts to arrive at the eventual layout, which exist as intermediate layout);

- analyzing each of said different page layouts in accordance with a predetermined criteria and selecting the page layout based on said predetermined criteria (King, col.3, lines 19-21 and col.41, lines 5-10, the media tree analysis proceeds until primitives a reached, wherein a white space scale factor in determining how layouts are arrived at to choose the eventual layout).

King does not explicitly disclose the steps of identifying an image to be used as a background image and grouping said plurality of images into a plurality of different page layouts *including said background image.*

Koba teaches method for laying out a plurality of images to plurality of pages includes the steps of identifying an image to be used as a background image (Koba, col.4, l ines 30-44); and grouping said plurality of images into a plurality of different page layouts including said background image (Koba, figures 5A-5; col.5, lines 36-42; and col.6, lines 21-45).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Koba and King to provide such layout with background image, since this would have obtained an intuitively beautiful layout as Koba disclosed in col.5, lines 38-42.

Regarding claim 23, which is dependent on claim 16, King teaches wherein said predetermined criteria comprises the amount of white space in each of said page layouts (Refer to the rationale relied to reject claim 1, King teaches white space scale factor, which implies that said predetermined criteria comprises the amount of white space in each of said page layout).

Regarding claim 25, which is dependent on claim 16, King teaches scaling the images of said selected page layout by different amounts (King, col.41, lines 1-2; scale factors may apply to particular design components. This implies scaling the images of selected page layout by different amounts).

Regarding claim 28, which is dependent on claim 16, King teaches wherein said placing of said plurality of images in said different page layouts comprises scaling all of said images such that they fit within said page format (King's abstract describes "scale factors"; col.49, lines 48-58; and fig.33).

Regarding claim 32, which is dependent on claim 16, King teaches spatially balancing the spacing between said images (King, col.30, lines 65-66; taking account of a type of balance in how the elements are arranged on the page).

18. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over King in view of Koba as applied to claim 16 above and further in view of Yamamoto et al., US 6,424,742 B2, filed 08/1998.

Regarding claim 17, which is dependent on claim 16, King and Koba teach the limitations of claim 16 as explained above. Koba does not explicitly disclose wherein said background image is displayed with at least one reduced characteristic.

Yamamoto teaches a background image is an image has very slow density (Yamamoto, col.10, lines 1-14).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Yamamoto into King and Koba to display background image with reduced characteristic, since this would have provide very slow density image as a background image.

Regarding claim 18, which is dependent on claim 17, King, Koba and Yamamoto teach the limitations of claim 17 as explained above. Yamamoto teaches reduced characteristic is color density. Yamamoto does not explicitly disclose wherein said at least one reduced characteristic is color saturation.

However, it would have been obvious to a person of ordinary skill in the art at the time at the invention was made to have modified Yamamoto to include color saturation as reduced characteristic of the background image, since it was well known in the art at the time the invention that saturation, lightness, intensity, contrast are attributes or characteristic of an image.

Regarding claim 19, which is dependent on claim 17, King, Koba and Yamamoto teach the limitations of claim 17 as explained above. King teaches identifying at least one image to be placed at a predetermined image location (King, col.18, lines 1-16)

19. Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over King in view of Koba and further in view of Yamamoto as applied to claim 19 above, and further in view of Bossut et al., US US 2001/0030653 A1, priority filed 04/1998.

Regarding claim 20, which is dependent on claim 19, King, Koba and Yamamoto teach the limitations of claim 19 as explained above. King does not explicitly teach wherein said image is an placeholder image.

Bossut teaches an image is a placeholder image (Bossut, page 6, paragraph 118).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Bossut into King and Koba to include a placeholder image is a digital image, since this would have allowed the user to obtain digital images from different source.

Regarding claim 21, which is dependent on claim 20, King and Koba teach the limitations of claim 20 as explained above. Koba does not explicitly disclose wherein said image placeholder is correlated to an area of interest of said background image.

Bossut teaches image placeholder is correlated to an area of interest of said image (Bossut, page 6, paragraph 118).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Bossut into Koba to provide an zone of interest of said image background, since this would have allowed the user to identify interesting portion of any images including background image as an placeholder image.

20. Claims 24 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over King in view of Koba as applied to claim 16 above, and further in view of Ross et al., US 6,026,417, filed 05/1997.

Regarding claim 24, which is dependent on claim 16, King does not explicitly teaches wherein said analyzing said different page layouts comprises scoring each of said different page layouts.

Ross teaches how a Page Manager calculates a closeness score as part of preparing page layouts in order to aid the decision process (Ross, col.28, lines 42-65), which constitutes a situation wherein analyzing said different page layouts comprises scoring each of said different page layout.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Ross and King, since this would used Ross's scoring to aid the decision process of King's invention.

Regarding claim 29, which is dependent on claim 16, King the user of recursive design tree to compare various layouts (King, abstract). Since recursion is internally represented by iteration, this process necessarily involves analyzing of said different page layouts that comprising a iteration of different page layouts and selecting the best page layout until the criteria are best met. However, King does not explicitly teach a situation where little or no further improvement in scoring is obtained.

Ross teaches how a Page Manager calculates a closeness score as part of preparing page layouts in order to aid the decision process (Ross, col.28, lines 42-65), which constitutes a situation wherein analyzing said different page layouts comprises scoring each of said different page layout.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Ross and King, since this would used Ross's scoring to aid the decision process of King's invention.

Regarding claim 30, which is dependent on claim 29, King, Koba and Ross teach the limitations of claim 29 as explained above. King teaches scaling individual images of the page layout obtained after said iteration (King, col.40, lines 52-54; scale factors may be used to adjust components' fit in the layout process).

21. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over King in view of Koba as applied to claim 23 above, and further in view of Nakatake et al., as supplied by the Application in IDS filed on 04/03/2001.

Regarding claim 26, which is dependent on claim 23, King does not explicitly teach wherein the amount of white space is minimized by using stochastic algorithms.

Nakatake's teachings are relevant to an analogous situation, in which chips are arranged on an intergrated circuit. In this situation, Nakatake refers to using simulated annealing, which is a type of stochastic algorithm, because it packs with good area efficiency and therefor minimizes white space (Nakatake, page 487-488).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Nakatake and King, since Nakatake's method of simulated annealing to pack with good area efficiency, thereby resulting in a method wherein the amount of white space is minimized by using stochastic algorithm.

22. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over King in view of Koba as applied to claim 16 above, and further in view of Fukui et al., US 5,742,837, patented 1998.

Regarding claim 27, which is dependent on claim 16, King does not explicitly teach wherein said predetermined criteria includes placing images in said different page layouts in a non-overlapping pattern.

Fukui teaches lists lack of overlapping as a criterion because it allows for an aesthetically pleasing layout (Fukui, col.7, lines 59-60).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Fukui and King to include placing images in said different page layout in a non-overlapping pattern, since this would avoid overlap in order to arrive at a more aesthetically pleasing layout as Fukui disclosed.

23. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over King in view of Koba and Ross as applied to claim 29 above, and further in view of Fukui et al., US 5,742,837, patented 1998.

Regarding claim 11, which is dependent on claim 29, King, Koba and Ross teach the limitations of claim 29 as explained above. King does not explicitly disclose rotating said images a predetermined amount.

Bottomly teaches a process by which regions of the page are rotated 180 degrees to aid in orienting (Bottomly, col.4, lines 21-31).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Bottomly and King to rotating said images a predetermined amount, since Bottomly's method of rotating 180 degrees would have aided in orienting in page layout.

24. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over King in view of Koba and Ross as applied to claim 29 above, and further in view of Burn, US 6,014,137, filed 02/1997.

Regarding claim 33, which is dependent on claim 29, King, Koba and Ross teaches the limitations of claim 29 as explained above. King does not explicitly teach positioning said images in said selected page layout so as to provide a desired border on said page.

Burns teaches the use of window borders in a kiosk authoring system that would require image arrangement in order to present the user with an aesthetically pleasing layout (Burns, col.3, line 59).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Burns' border and King, since this would have presented the user with an aesthetically pleasing layout.

25. Claims 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over King in view of Koba as applied to claim 23 above, and further in view of Archibald, US 5,4592,826, patented 1995.

Regarding claim 34, which is dependent on claim 23, King does not explicitly teach wherein said white space is determined vertically between adjacent images in said page layouts.

Archibald teaches the use of a vertical-horizontal grid pattern to organize the components for the layout efficiently (Archibald, col.3, lines 12-19).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Archibald and King to have said white space be determined vertically between adjacent images in said page layouts in order to organize the components for the layout efficiently.

Regarding claim 35, which is dependent on claim 23, King teaches wherein said white space is determined horizontally between adjacent images in said page layouts.

Archibald teaches the use of a vertical-horizontal grid pattern to organize the components for the layout efficiently (Archibald, col.3, lines 12-19).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Archibald and King to have said white space be determined horizontally between adjacent images in said page layouts in order to organize the components for the layout efficiently.

26. Claims 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over King et al., US 5,956,737, patented 09/1999.

Regarding independent claim 36, claim 36 is for a computer software product performing method of claim 1 and is reject under the same rationale.

However, King does not explicitly disclose a system wherein a computer software product for laying out plurality of input image in predetermined format comprising a computer readable storage medium having a computer program.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have recognized that to performing the King's invention, a program/software must be stored in computer to execute such function.

Conclusion

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Morag, US 6,324,545 B1, filed 10/1997, teaches personalized photo album.

Zine, US 5,762,561, filed 10/1996, teaches custom golf scorecard design automation.

Novak, US 3,715,812, patented 1973, teaches color coded pronunciation symbol system.

Yokota et al., US 6,282,330 B1, filed 02/1998, teaches image processing.

Kurosawa et al., US 6,466,954 B1, filed 03/1999, teaches analyzing a layout structure of an image using character recognition and displaying or modifying the layout.

Matsumura et al., US 6,727,909 B1, filed 02/1998, teaches image editing method.

Long et al., US 2002/0095439 A1, filed 02/1998, teaches method of positioning display image.

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu V Huynh whose telephone number is 703-305-9774. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather R Herndon can be reached on 703-308-5186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TVH
June 24, 2004

STEPHEN S. HONG
PRIMARY EXAMINER